

Amendments to the Claims

This listing of claims will replace all prior versions and listings of the claims in this application.

Listing of Claims

Claims 1-20 (Cancelled)

21. (Original) A clamp mechanism for mounting a medical device to a support member, comprising:

a clamp body defining a first jaw, a second jaw and an opening therebetween adapted to receive a support member;
a clamp shaft including a forward end for extending into the opening, a rearward end, and an intermediate portion having

a longitudinal axis and being mounted for axial movement on the first jaw of the clamp body;

ratchet and pawl means operatively interposed between the intermediate portion of the clamp shaft and the clamp body,

the ratchet and pawl means comprising ratchet teeth and a pawl;
biasing means for yieldingly urging the pawl and ratchet teeth into engagement with a biasing force; and

the biasing means, the ratchet teeth, and the pawl being configured and arranged to normally resist axial movement

of the clamp shaft in a direction away from the opening and, upon application of an axial force to the clamp shaft sufficient to overcome the biasing force of the biasing means, to permit slide-ratcheting axial movement of the clamp shaft in a direction toward the opening.

22. (Original) A clamp mechanism in accordance with claim 21, wherein the clamp body has a hole therein for slidably receiving a locking element, the locking element adapted to

apply force on a component of the medical device when the clamp body is affixed to a support member.

23. (Original) A clamp mechanism in accordance with claim 21, wherein the first jaw and the second jaw are stationary.

24. (Original) A clamp mechanism in accordance with claim 21, wherein the first jaw of the clamp body has a clamp shaft receiving bore therein for slidably receiving the clamp shaft.

25. (Original) A clamp mechanism in accordance with claim 21, wherincn the ratchet teeth are external threads formed on the intermediate portion of the clamp shaft, and wherein the threads have a forward lead flank and a rear load flank, the leading flank extending rearward to form an acute angle with a longitudinal axis of the clamp shaft and the load flank extending perpendicular to the longitudinal axis of the clamp shaft.

26. (Original) A clamp mechanism in accordance with claim 21, further comprising a release mechanism for overcoming the biasing force of the biasing means and disengaging the pawl and ratchet teeth, thereby permitting axial movement of the clamp shaft in the direction away from the opening.

27. (Original) A clamp mechanism in accordance with claim 26, wherein the release mechanism and the pawl means are a unitary body.

28. (Original) A clamp mechanism in accordance with claim 26, wherein the first jaw has a release bore therein and the release mechanism is an elongated pin slidably mounted in the release bore.

29. (Original) A clamp mechanism in accordance with claim 26, wherein the release mechanism has an adjustment slot extending therethrough for receiving the clamp shaft, the ratchet portion of the clamp shaft having threads with a major diameter and the adjustment slot having a length greater than the major diameter of the threads on the clamp shaft, the pawl being a portion of a wall of the

adjustment slot having a thread thereon for matingly engaging the ratchet portion of the clamp shaft.

30. (Original) A clamp mechanism in accordance with claim 21, further comprising a hand knob attached to the second end of the clamp shaft.

31. (Original) A clamp mechanism in accordance with claim 30, further comprising a clutch mechanism operatively interposed between the hand knob and the clamp shaft, the clutch mechanism being adapted to prevent overtightening of the clamp shaft against a pole beyond a given torque value.

32. (Original) A clamp mechanism in accordance with claim 21, wherein the clamp mechanism is adapted to be rotatably associated with the medical device.

33. (Original) A clamp mechanism in accordance with claim 32, wherein the clamp mechanism includes a pivot latch adapted to selectively lock the clamp mechanism in a select one of a plurality of rotational positions with respect to the medical device.

Claims 34-57 (Cancelled)

58. (Original) A clamp mechanism for mounting a medical device to a support member, comprising:

a clamp body defining a first jaw, a second jaw and an opening therebetween adapted to receive a support member;
a clamp shaft including a forward end for extending into the opening, a rearward end, and an intermediate portion having a longitudinal axis and being mounted for axial movement on the first jaw of the clamp body;
ratchet and pawl means operatively interposed between the intermediate portion of the clamp shaft and the clamp body, the ratchet and pawl means comprising ratchet teeth and a pawl; biasing means for yieldingly urging the pawl and ratchet teeth into engagement with a

biasing force;
the biasing means, the ratchet teeth, and the pawl being configured and arranged to normally resist axial movement of the clamp shaft in a direction away from the opening; and
a release mechanism for overcoming the biasing force of the biasing means and disengaging the pawl and ratchet teeth, thereby permitting axial movement of the clamp shaft in the direction away from the opening; wherein the release mechanism and the pawl means are a unitary 10 body.

59. (Original) A clamp mechanism in accordance with claim 58, wherein the ratchet teeth are external threads formed on the intermediate portion of the clamp shaft.

60. (Original) A clamp mechanism in accordance with claim 59, wherein the threads have a forward lead flank and a rear load flank, the leading flank extending rearward to form an acute angle with a longitudinal axis of the clamp shaft and the load flank extending perpendicular to the longitudinal axis of the clamp shaft.

61. (Original) A clamp mechanism in accordance with claim 58, wherein the first jaw of the clamp body has a clamp shaft receiving bore therein for slidably receiving the clamp shaft.

62. (Original) A clamp mechanism in accordance with claim 58, wherein the first jaw has a release bore therein and the release mechanism is an elongated pin slidably mounted in the release bore.

63. (Original) A clamp mechanism in accordance with claim 58, wherein the release mechanism has an adjustment slot extending therethrough for receiving the clamp shaft, the ratchet portion of the clamp shaft having threads with a major diameter and the adjustment slot having a length greater than the major diameter of the threads on the clamp shaft, the pawl being a portion of a wall of the adjustment slot having a thread thereon for matingly engaging the ratchet portion of the clamp shaft.

64. (Original) A clamp mechanism in accordance with claim 58, wherein the release mechanism includes a release lever pivotally mounted to the first jaw.

65. (Original) A clamp mechanism in accordance with claim 64, wherein the release mechanism including the release lever and pawl means are located on the exterior of the first jaw.

66. (Original) A clamp mechanism in accordance with claim 58, further comprising a hand knob attached to the second end of the clamp shaft.

67. (Original) A clamp mechanism in accordance with claim 66, further comprising a clutch mechanism operatively interposed between the hand knob and the clamp shaft, the clutch mechanism being adapted to prevent overtightening of the clamp shaft against a pole beyond a given torque value.

68. (Original) A clamp mechanism in accordance with claim 58, wherein the clamp mechanism is adapted to be rotatably associated with the medical device.

69. (Original) A clamp mechanism in accordance with claim 68, wherein the clamp mechanism includes a pivot latch adapted to selectively lock the clamp mechanism in a select one of a plurality of rotational positions with respect to the medical device.

Claims 70-83 (Cancelled)